



Guide to Becoming a Corporate Innovant

Paul Schumann

with

Art by Scott Byers



2011

This work is licensed under the Creative Commons Attribution-ShareAlike 3.0 Unported License. To view a copy of this license, visit <http://creativecommons.org/licenses/by-sa/3.0/> or send a letter to Creative Commons, 171 Second Street, Suite 300, San Francisco, California, 94105, USA.

Paul Schumann

<http://insights-foresight.blogspot.com>

paschumann2009@gmail.com

Austin, Texas

Scott Byers

Scott Byers Design

<http://www.scottbyersdesign.com/>

scott@scottbyersdesign.com

Austin, Texas

Preface

Innovation within a corporation (or any other enterprise) results from the productive application of creativity within a box. And, as anyone experienced in corporate life knows, innovating within the box is quite often more difficult than innovating outside the box. And, in truth, most corporations don't want out of the box innovations as they are generally too risky, disruptive and often misinformed.

Sir N. O. Vant originated as part of an innovation enhancement program in IBM in the 1980s. He was devised as a play on words and a metaphor easily recognized, a gallant knight. I apologize immediately to the females of the business world for it was not and still is not my intent to offend anyone or suggest that females could not be innovants. Sir N. O. Vant represents the limits of my imagination to create a character or set of characters that would be gender neutral. So, with apologies to the women in business who are certainly more than damsels in distress, I offer our gallant knight.

The character of Sir N. O. Vant developed over the seven years that the innovation enhancement program ran, and were a feature in each edition of an internal magazine, Creativity!, with a distribution of over 60,000 technical professionals. All of the cartoons are creatively drawn by Scott Byers. Each episode features our fearless knight, Sir N. O. Vant, undertaking some perilous activity to bring a new idea into a business. Each is accompanied by a short description expounding on the principle. The colloquialisms represented by the cartoons are drawn from my experience innovating inside IBM, research and experience as a consultant. They began when I was asked to share my personal experiences in IBM as an internal entrepreneur. They were part of a presentation I gave many times within IBM.

The context for these thoughts is an individual inside of a large organization with a strong and resilient culture, often portrayed as the dragon.

I hope in this series of cartoons and brief essays to show that there are some practices you can follow which will help you do what you have resoundingly said you want to do -- innovate, be a change master, an intrapreneur, an innovant.

Some definitions:

Innovant: Having innovations

Innovation: The introduction of something new; something which deviates from an established doctrine or procedure; something that differs from existing forms

Intrapreneur: A person within a large corporation who takes direct responsibility for turning an idea into a profitable finished product through assertive risk-taking and innovation

Paul Schumann

April 1, 2011

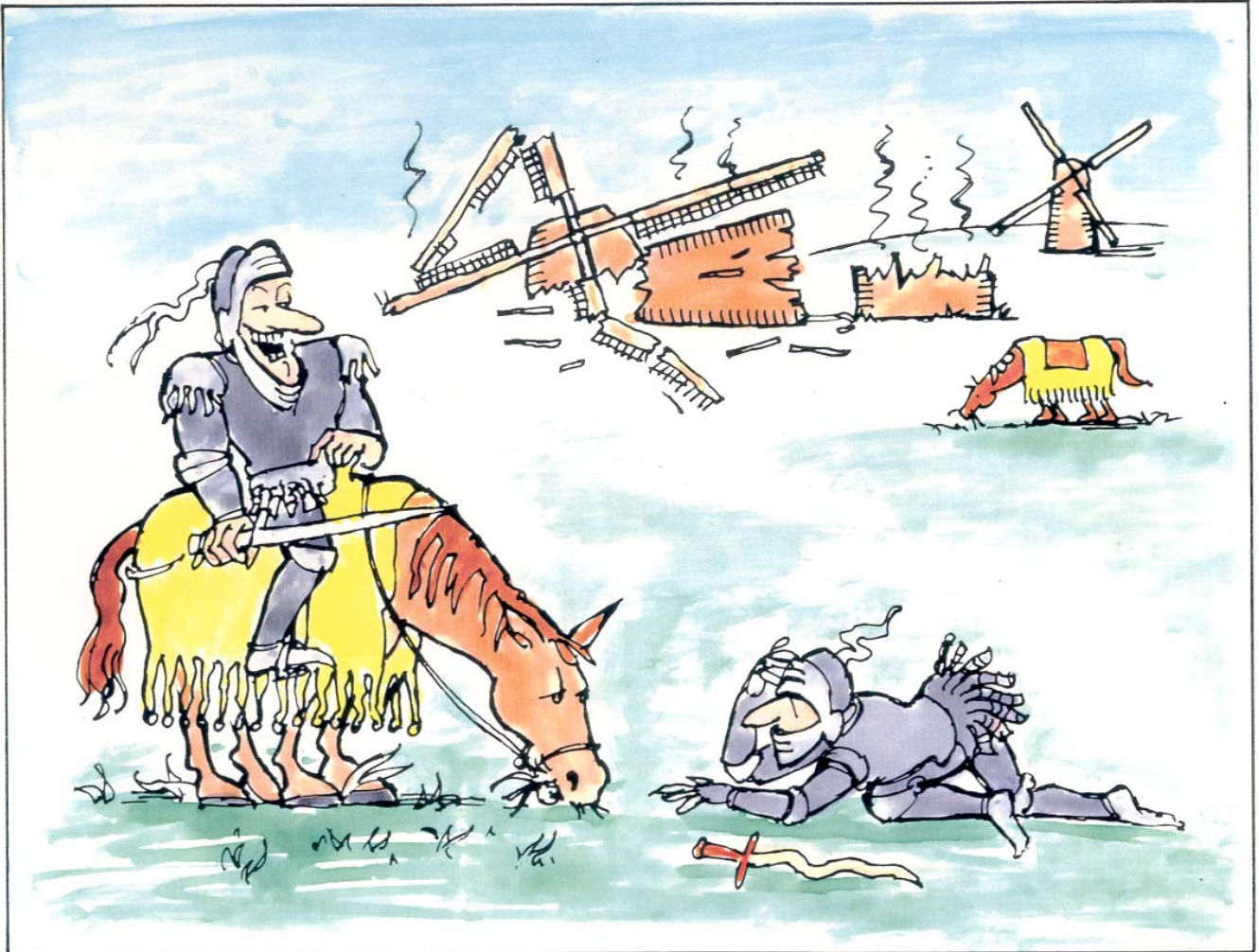
Austin, Texas

It's all a Matter of Footwork and Timing!

To be a successful innovator, you must recognize the culture you are attempting to change. No culture "likes" to be changed. Forced change is often not possible and almost always unwise. It is best to work within the culture to effect change. This may take longer but the results are more durable and it is far easier on the innovator and his or her reputation.

N. O. Vant proudly stands in front of the destroyed windmills, completely unscathed. A comrade meanwhile has been beaten badly. While there is some truth to Vant's explanation, "It's all a matter of footwork and timing!" this factor is often exaggerated in success stories.

It's very easy to view someone else's success and say that it was luck or a matter of timing, or even that the presenter is a "good dancer," i.e., fast on the feet while making a proposal. In truth, it's understanding the pulse of the culture and coming forward with your concept in sync. It's being prepared for all questions that may arise. It's not meeting force with force, but using the force to your advantage. It's being right.



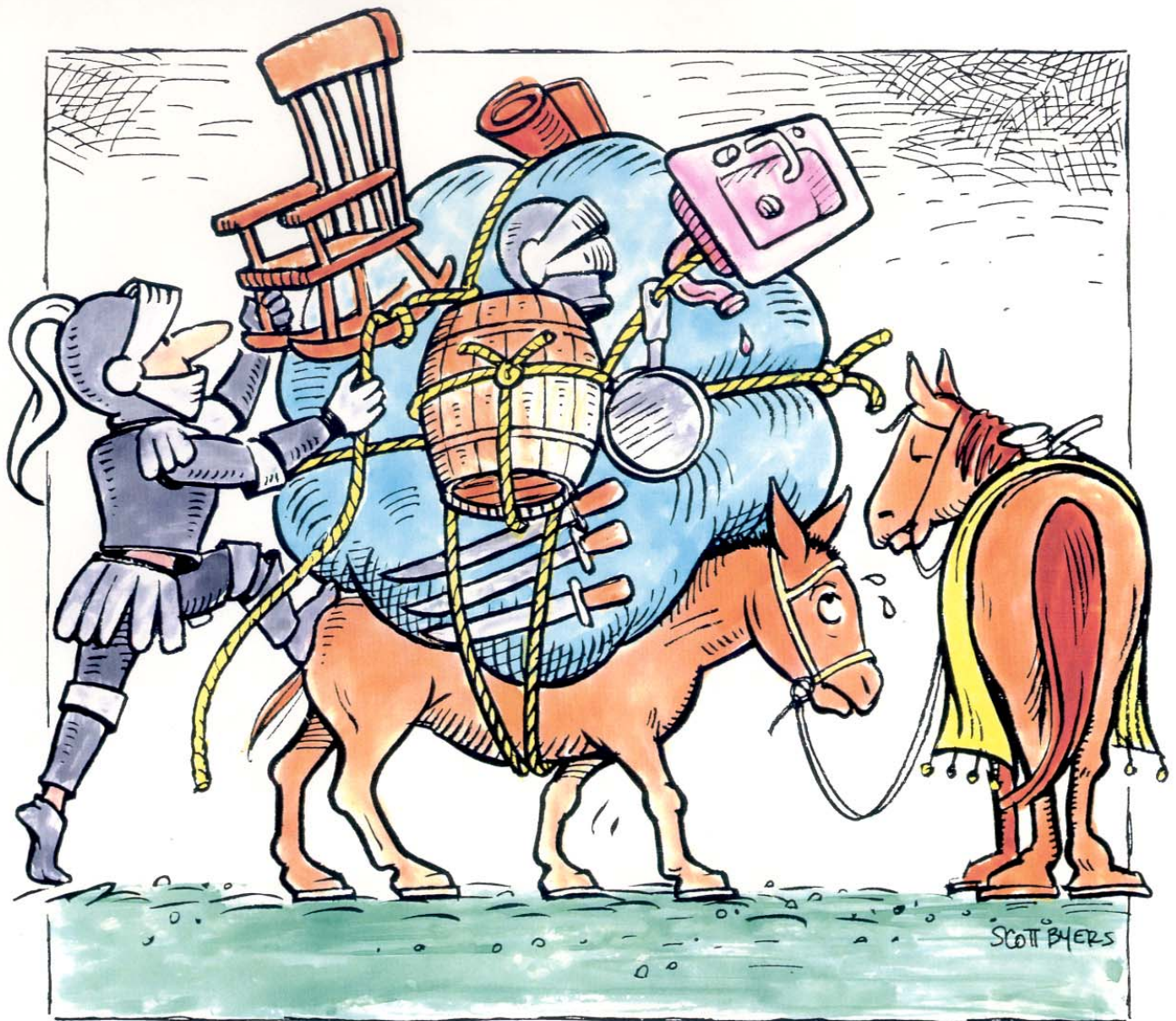
"It's all a matter of footwork and timing."

Be Prepared for Long Term Involvement

A significant investment of time is required for acceptance and implementation of an innovation in any culture (organizational or societal). Therefore you need to be prepared for long-term involvement when you start to pursue your new idea. Research on the acceptance of innovations has shown that it takes five to seven years of the innovator's time for a significant innovation. Usually, the more significant the idea, the more organizations and people it touches, the longer it will take to gain acceptance.

Strong cultures have significant advantages if they are focused on productive needs. Once a direction has been established, strong organizational cultures implement productively. People in strong cultures know how to behave and what to do. As a result, the culture and the people in the culture who understand the culture, are much more likely to be successful. However, strong organizational cultures resist change.

A productive culture shouldn't be changed without careful thought. But, in the rapidly changing environment in which we find ourselves, we must change, and change rapidly. We need innovants who are willing to invest some of their careers pursuing significant innovations. Breakthrough, distinctive and incremental innovations in products, processes, and procedures are needed. And, we need a culture in which one of the key values is a commitment to constant change.

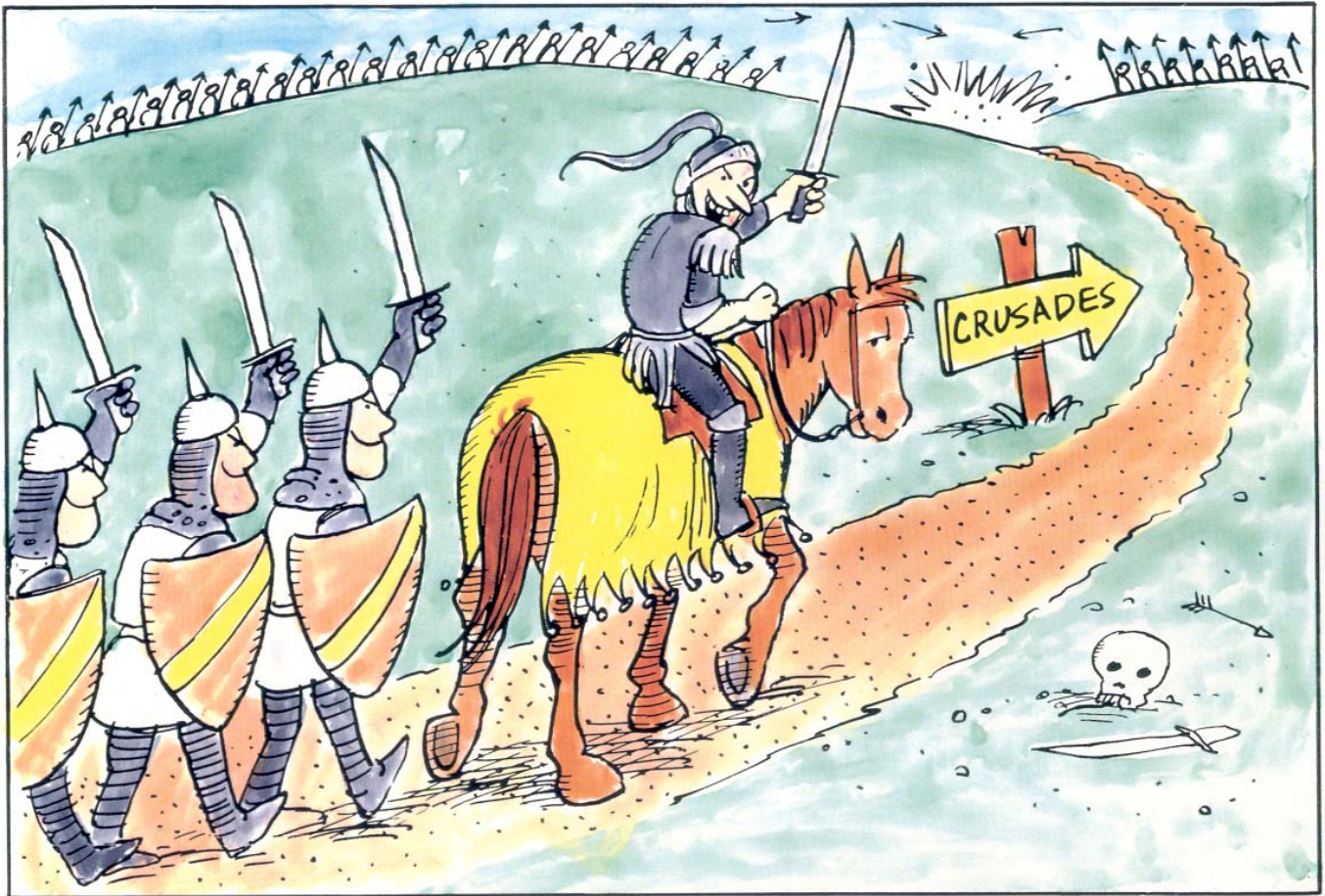


Be prepared for long-term involvement.

Seek a Coalition of Support

The process an innovation follows from inception to implementation is far from linear. A number of different people and organizations become involved. Along the road an innovation follows, four key activities occur – ideation, championing, missioning and strategic rationalization. The ideator, linking capabilities with needs, creates the idea. He or she needs the support of others to champion the idea. In missioning, the appropriate resources are organized in order to pursue the innovation. Strategic rationalization results in the selection of ideas with the most promise based on the priorities of the culture. The processes by which these activities occur involve many people. If an innovation is to reach implementation, many supporters at various stages in the process and in different places must be cultivated.

Innovation has been shown to follow a regular process but in an irregular manner. That is, there are certain steps that each innovation must go through after getting approval for implementation. But the manner in which it progresses from state to state is erratic. It is often not possible to predict exactly what twists and turns the innovation will take. An innovant must approach each step in the process with eyes wide open, scanning the entire horizon for pitfalls and opportunities. As each significant feature of the terrain becomes visible, the wise innovant seeks support in that area. Innovations often start out to be one thing and end up being something different. For example, the search for a new type of adhesive failed and produced a weak glue. The weak glue became the successful ingredient for stick-on notepaper. Having a coalition of supporters aware of the innovation in a wide variety of areas results in additional applications for the innovation possibly not previously conceived.



Seek a coalition of support.

Carefully Select Your Enemies

In order to successfully implement a new idea in a strong culture, an innovant must carefully choose whom the enemies of the proposal will be. How can you choose enemies? How can you select enemies that you are sure you can defeat? These are the questions that an experienced innovant has learned to answer.

After you have carefully researched your idea and developed a proposal, it is important to develop an understanding of who will support your idea and who will oppose it. The reasons, for the support or opposition will generally fall into several categories: business emphasis, local sub-optimization, personal prejudice, and interpersonal relations.

Differences based on business emphasis may be a matter of interpretation of what the strategic or tactical direction of the culture is, or it may be because the parties involved do not share the same information or values.

Local sub-optimization is probably the most common form of agreement or disagreement. Individuals believe that what is in their best interests or the best interests of their group or organization is in the best interest of the culture. Failure to see a larger picture is the root cause of this problem. Quite often, two individuals reach agreement or disagreement for the wrong reason when both sub-optimize.

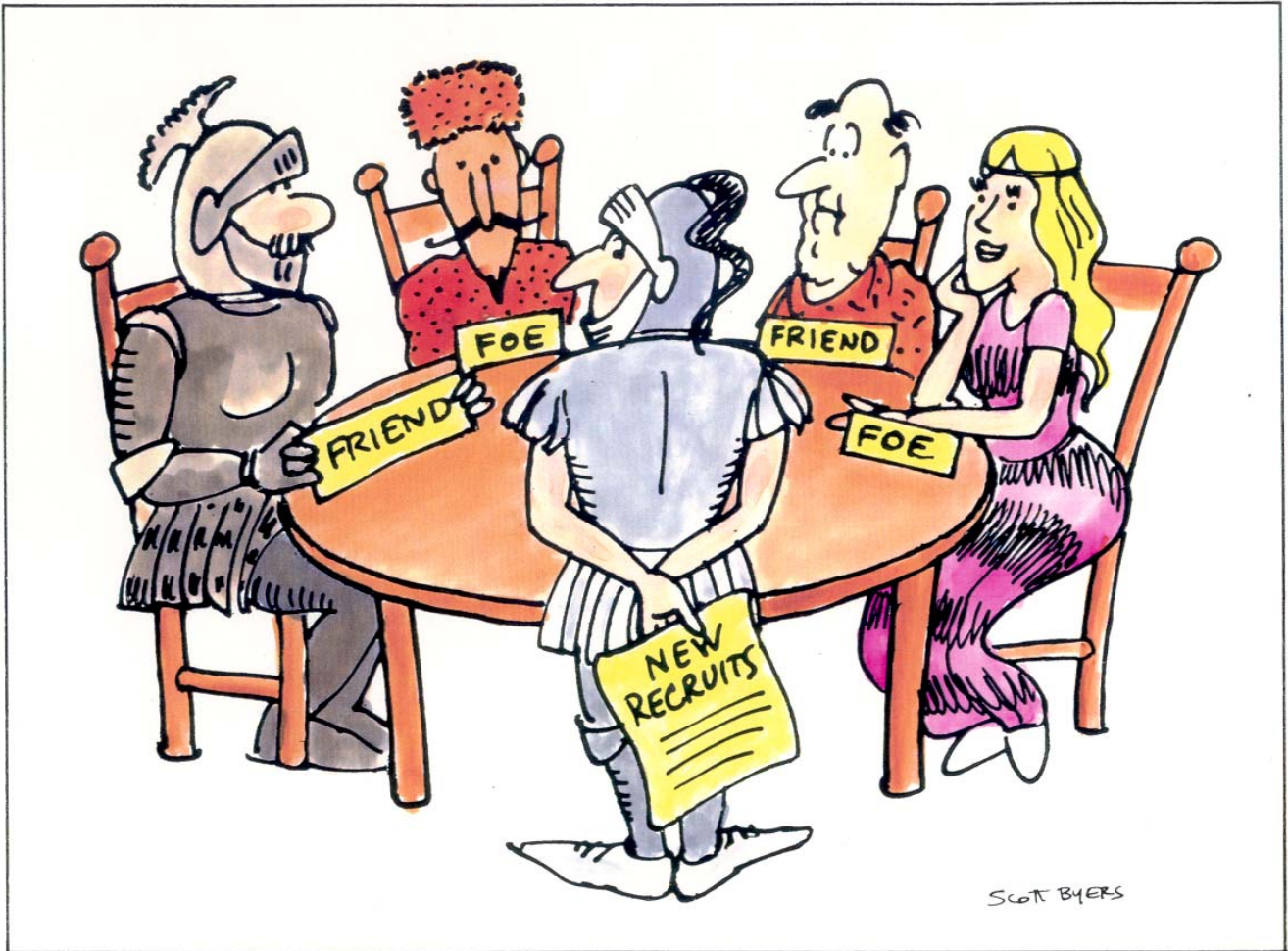
Personal prejudices are real -- unfortunate but real. There is little one can do about them except understand that they exist, characterize them for the people whose support you need, and try to understand the causes of the prejudices. Then try to avoid those items in your proposal that might trigger the prejudice.

Interpersonal relations can, of course, influence opinions. If you have had no previous experience with the person, you might want to try to build a relationship before the person reviews your proposal. You must recognize that this relationship can also be detrimental. A bad first impression is hard to turn around. Make sure that you have researched the person well enough to make the first impression a positive one. If a bad relationship exists, it is difficult to overcome it with a good idea and a skillfully planned proposal. A track record of good work is the best way to overcome the effects of a previous bad experience.

In all cases, be honest in what you do. You never want to mislead someone in order to gain support. You will make many proposals in your career, and many times you will be turned down. Quite often you will fail. Your integrity is the only thing that you retain throughout this process.

After determining who will support and who will oppose your proposal, and the likely reasons for their view, an innovant must then determine how strong the opposition is to the proposal, what can be done to minimize opposition, or how the proposal can be altered to turn strong opponents into neutrals or supporters. If the proposal can be altered slightly, without losing the essence of what you want to accomplish, and remove opposition, do so.

Carefully select your enemies! You want ones that you can defeat!



Carefully select your enemies.

Don't Stick a Sharp Stick in Anyone's Eye

When you are seeking support for your innovation, never stick a sharp stick in anyone's eye! It is important to seek a coalition of support for your idea. Quite often, in the excitement of selling his idea, an innovant brandishes her/his lance importunately, causing eye damage to those who would have otherwise been supporters. Not only do these wounded individuals not want to support this idea, they may not ever support another of your proposals. And, word gets around. Others, seeing the damage caused to unwary would-be supporters, go out of their way to avoid you. Needless to say, this is not conducive to team building, so essential for idea implementation in a social structure.

Even if wounded accidentally, the wounded warrior may think that there was malice in the unfortunate action. Tensions are sure to rise as a result, and counterattacks may be provoked. During periods when change is most needed, tension always runs high. The old ways of working are no longer effective. People seek someone to blame. The past is looked upon as something desirable. Change is threatening. During these periods, an innovant must especially careful not to stick a sharp stick in anyone's eye. Even the hint of an improperly handled lance will send prospective supporters scurrying for cover.

An important rule in selling is to never be put into a position where you have to say no to a prospective customer. The customer may just be looking for reasons not to purchase. Sales are made in a conversation of positive reinforcement of "yes." Saying "No, we can't do that, but you don't really need it" is not going to elicit much support from your prospective buyer. This is sticking a sharp stick in your customer's eye. You do not want to lie or mislead your customer, in this case the person who has to buy in and support your innovation.

A successful innovant will have thought out possible objections and traps, and positioned his or her idea to minimize the chance that will force her or him to say no. You must maintain your integrity. It stays with you all your life. If you must answer no, blunt the sharp stick somewhat by stating what you can do, followed immediately by what you can't do. Then ask why the customer for your innovation wants that capability. Thinking quickly on his feet, an innovant will either find a way to accomplish that objective, or ask for more time to study a solution explaining to the customer that she or he understands the importance of the new requirement.

A frustrated innovant, unable to gain support, may consciously strike out at those who do not support her or him. This is rarely wise. Skirmishes, battles and wars have different time scales. An innovant may have won the skirmish, but may lose later when it really counts. And, whether he or she succeeds or fails, the innovant will have to work with the same people later. Blinded by previous thrusts of the lance, the wounded individual may not be able to see the value of the person or idea.



Don't stick a sharp stick in anyone's eye.

Conquer Small Dragons First

Four roles of a creative person are explorer, artist, judge and warrior. The explorer is constantly alert to possibilities and asks perceptive questions about the environment. The artist changes the resources, knowledge or things he or she has into something else. The judge evaluates the potential solutions. And, the warrior makes something happen in the real world. After the innovant has researched, created something new, and judged which ideas are most appropriate, his or her job now is to make the change in the culture required by the new idea. The innovant must defeat the dragons of the culture.

In Western culture, dragons hoard wealth, even though they can't enjoy it. In strong cultures, dragons react to any threats to the status quo.

It is important for an innovant to plan for an early success. This is wise for several reasons. If the innovant has had no previous experience, and therefore no track record as a dragon slayer, he or she needs to demonstrate small dragon slaying before being allowed to fight the larger dragons. Phasing the plan so the first step is the dispatching of a small but troublesome dragon will convince others that perhaps you have large dragon fighting capability.

Whether you are an experienced dragon are fighter or not, it is always useful to stage the innovation program in easily measured increments. Starting the project off with an attainable step is sure to build credibility.

Innovations are often planned to fail! In most cases innovations are never integrated into the meaningful plans of the organization. The innovation process is viewed with suspicion because it is erratic and untimely.

By planning for an early success, that others have more comfort in attaining, you are much more likely to have your innovation program incorporated into the mainline plan. Then, once the small success has been obtained, the larger goal can be reached and planned upon.

Lastly, it is important to you personally to plan to succeed. I can't tell you how often I've had people approach me with:

"This may not work, but . . ."

"I know you won't like this, but . . ."

"I don't know much about the subject, but . . ."

The mind requires purpose to accomplish anything. Clearly establishing in your own mind the concept of success is paramount to actually obtaining success.

Know any small, troublesome dragons that need slaying?



Stage the problem in easily measured increments . . .

Develop an Incremental Plan

Chester Carlson recognized a need for a quick, inexpensive, dry copy process in 1935. Two years later, he had his concept, and proposed a process in his initial patents. Seventeen years later, the first commercial product was introduced.

Xerography is considered to be one of history's most successful single innovations in that it created a very successful company and dramatically expanded the market for copiers.

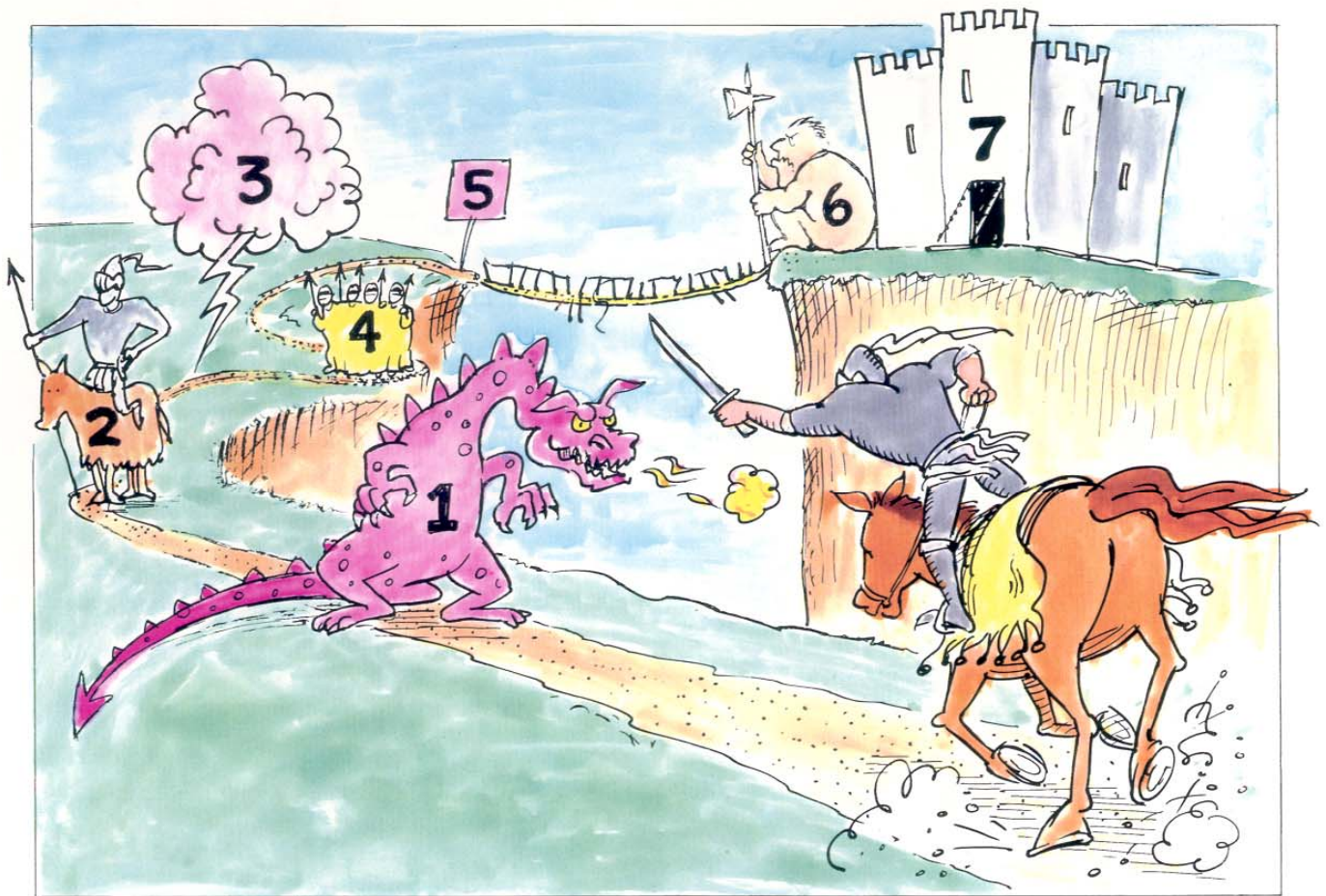
Yet, can you imagine going forward with a proposal for a new technology that would eventually revolutionize an industry and ask for millions of dollars and 17-year development cycle!

It's not likely under any circumstances that such a request would be honored, much less in current conditions. Now, most of the innovations we can think of will probably not equal Carlson's, but who knows.

Understanding the nature of the innovation process and that its later stages occur by a diffusive process are very beneficial in structuring your strategy and plan.

In addition, it just makes good common sense to ask for smaller pieces of the project with less cost and shorter time. Make sure that each step is measurable -- cost, time, return. It is important to show some benefit at each stage, or at least a minimal risk.

Near-term developments of an innovation are also easier to forecast. When you propose your innovative concept, clearly define the short-range goals, and outline the total project and its possibilities. But, like mountains seen in the distance whose outline is vague, don't oversell the long range. We can't see that clearly, and by the time you get there, it may have changed.



Develop an Incremental Plan.

Be Alert to Signals of Change

During periods of chaos, change can occur rapidly. And, there is no guarantee that the change will come from the area that you are focused upon. In fact, history tells us that major change usually originates from an area outside the one impacted.

In addition change can be driven by technical, social, political, demographic, or environmental forces. Dick Davis, while a forecaster for Whirlpool, stated that "No company gets hit between the eyes by the future. They get it in the temple."

Once a fellow lost a valuable coin while outdoors. It was growing dark, and he got down on his hands and knees to try to find the coin. Crawling around he made a peculiar sight. A passer-by stopped and watched for a while. Finally he asked, "What are you doing?" The fellow answered, "I've lost a valuable coin and I'm trying to find it." The passer-by asked, "Did you lose it there under the street light?" "No," the fellow responded. "Then why are you looking there?" asked the passer-by. "Because the light is better here," was his response.

Sometimes our behavior is analogous to the story of the coin when we look for competition only from the competitors that we are most familiar with. And, when we limit our scanning for signals of change from only the industry in which we compete, we are "looking where the light is better." In the current environment we must have our "radar" set on 360-degree scan with very little discrimination as to the signals we receive. Then when we pick up a blip, a weak signal of impending change, we need to switch from scanning to monitoring. It is important then to monitor that blip to decide if it is important to our business future. If we determine that it is, then it is imperative that we switch from monitoring to tracking. In tracking a signal on radar, we start measuring its progress and projecting its impact on us.

Sir N. O. Vant is originally not conscious of the stone. Only a small shadow indicates that it is coming. When the shadow is big enough, he recognizes the danger, and quickly moves away. If he had not gotten the message, he would have been smashed. The forces at work now are very powerful. They will not only impact businesses, but they will impact individuals. If you are not alert to the signals of change, you may find yourself obsolete in a short period of time..



Delight Your Customers

Would you rather be satisfied or delighted? Which do you think your customers would prefer? I suspect that you answered "delighted" in both cases. The reason for this lies deep in the meanings of the two words. To be satisfied means to have desires and expectations filled. It literally means to have an end put to a desire, want, or need. Who really wants an end put to their desires? The word satisfy comes from the same root as sad and sated, which is what you become if you have all your desires satisfied.

To be delighted is to take joy or pleasure in something. The word has an element of surprise in it. To be delighted is to be provided with something that you may want or need, but not consciously perceive or expect. Delighted comes from the same root as delicious and delectable, words we associate with food. And, I suspect, most of us would rather have a delicious meal than one that merely satisfies our body's needs.

"Delight" comes from the same root as "lasso," which is what you will do if you delight your customers. You will be able to hold your current customers, gain a few more from the herd, and even capture a few strays from the range.

And your customers that you delight will be enlightened by the product or service that you have given them. By surprising them and meeting their unrecognized needs, you will open their eyes to a range of possibilities unperceived by them.

To meet the unrecognized needs of your customers, you must be truly market driven. You must understand your customers, the environment in which they operate, what delights your customers' customers, the technological capabilities for solutions, and what your competitors are doing and likely to do in the future. You can delight your customers by helping them delight their customers in a better manner than your competitors.

To delight your customers requires innovation - market driven innovation, not innovation driven by personal prejudices or desires, internal organizational needs or technological capability.

Sir N. O. Vant recognizes that, to be successful, he has to delight three different types of customers: his current known customers, known potential customers, and unknown potential customers.

Generally, Sir N. O. Vant can delight his current customers by providing an incremental improvement, thereby maintaining his market share. He can delight his known potential customers, generally those customers of his competitors, by providing a markedly different product or service. He delights his competitors' customers, thereby helping them become his customers and increasing his market share. Sir N. O. Vant delights his unknown potential customer by providing a radically different product or service. In this manner, he expands the market for his products or services. Current customers are generally delighted with incremental innovations, potential known customers by distinctive innovations, and unknown potential customers by breakthrough innovations.

By delighting his current customers, delighting his competitors' customers, and delighting customers he didn't know he had, Sir N. O. Vant is delighted! Wouldn't you rather be delighted than satisfied?



Delight your customer

Delight your competitor's customer

Delight new customers

Make the Innovation Easy to Adopt

"In a technologically turbulent world the effective introduction of technological innovation is an essential skill. To the innovator the adoption issue usually is simple and even excitingly obvious. Technical superiority and economic merit are demonstrable facts. Why, then, should society not welcome and promptly adopt the innovation? But history repeats a lesson: Adoption takes time and an innovative way to encounter resistance.

Resistance is almost a certainty with radical innovations that make existing technology obsolete (except when there is a severe crisis). Often these unexpected, frustrating and costly delays lie in social acceptance, not in economic and technical merit." These are the words of Jim Bright in his introductory paragraph to his excellent paper "Strategies to Speed the Adoption of Innovation."

Sir N.O. Vant recognizes that no matter how important the innovation is, it is people who must turn the idea into reality. A wise N.O. Vant thus creates similarity. He or she in developing the innovation considers the people who must work as a team to implement it. And this is true whether the idea is internal to Vant's organization or external where the customer has to accept the innovation. When the idea applies externally, the successful N.O. Vant recognizes that the team necessary to implement the innovation must include the organization, and therefore, his or her customer.

Everett Rogers has studied the factors that control the adoption of an innovation. He found ten factors: relative advantage, compatibility, simplicity, divisibility, communicability, measurability, relative costliness, failure protection, credibility and resource competitive. A wise N.O. Vant creates strategies of developing and seeking adoption of innovations based on these ten factors.

Bright relates the story of Edison's development of the electric light as an example of an innovator wise in the ways of having an innovation adopted. Edison was overcharged \$5.00 on a gas lighting bill. This made him angry and focused his attention to the problem of lighting of the work place and home. He had seen the early electric arc lamps which were very powerful but not practical for the application he envisioned. "I saw the thing had not gone so far but that I had a chance. The intense light had not been subdivided so that it could be brought into private homes," wrote Edison.

Edison's laboratory notebooks indicate his train of thought. He started first with an analysis of the gas lighting industry, its financial structure, and operating costs. "Long before he had even a crude product he had relative advantage and relative costliness to the user before him as a target," writes Bright. Edison's concern, as indicated by his writings, was not to develop a technologically different product, but "to improve the illumination to such an extent as to meet all the requirements of natural, artificial and commercial conditions." And, he goes on to say that he would like to have the light distributed "in the same manner as with gas and water." The existing gas pipes were used to bring the electric power into the house. Wires were run through the gas pipes (compatibility, simplicity, reversibility). The gas burner was replaced with an "electric burner" (communicability). "We still call it a socket today!" writes Bright.

People paid for their gas by putting a quarter into a meter. The customer then got a quarter's worth of "light." Edison did the same thing. Not only did he make it compatible with existing practices, he made it very

easy for the customer to see the relative advantage. To get permission to run the electric power through the towns, he asked for permission to run "electric mains," a term we still use, that was compatible with the term "gas mains" people were already familiar with. This improved the communicability of the innovation.

To be successful Sir N.O. Vant must create similarity. He or she does this by including the requirements for the adoption of the innovation into the original idea. Once the idea is developed, he or she, then uses strategies of adoption which create similarity.

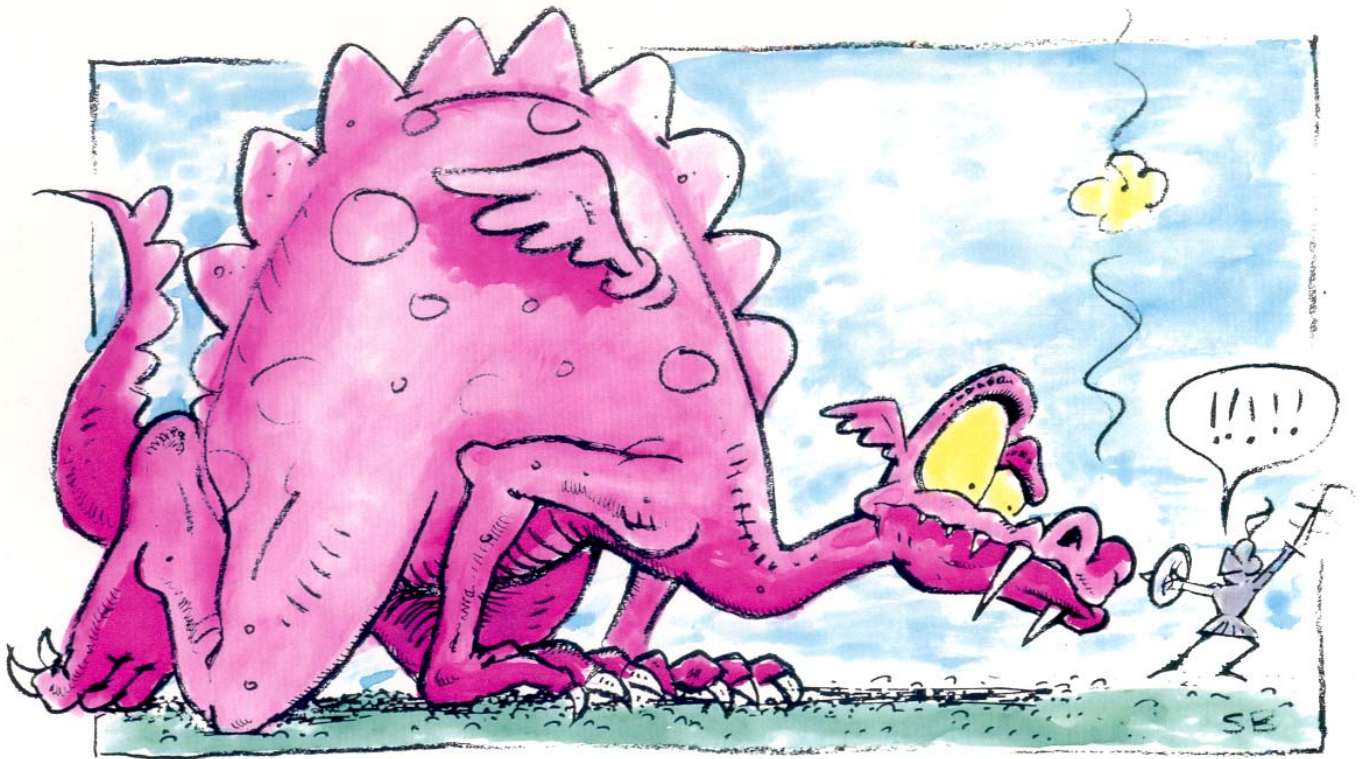


Use strategies of adoption that create similarity.

Conquer Your Own Fears

Without risk, there is no progress. Sometimes we have to confront our fears, our own private dragons, and act. Now is such a time. I sense that we are at a critical point in our history, a time of opportunities riding on a dangerous wind.

Your vision, your motivation, your actions as an individual have always been important to our future, but never more so than now. You can make a difference.



"Hey, big guy! Outta my way! I'm coming through!"

Every Bureaucrat Has Unlimited Authority to Say No

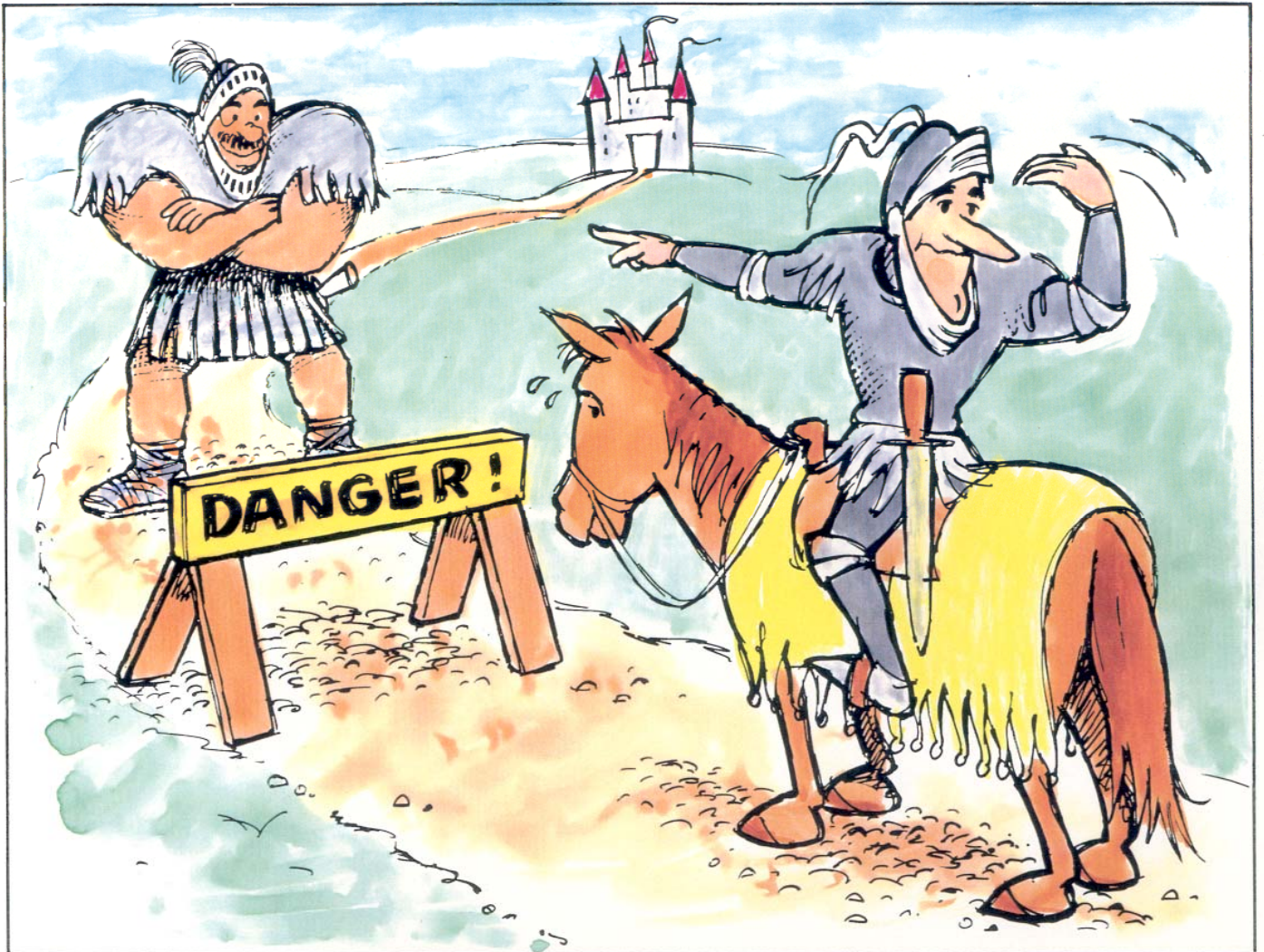
Every bureaucrat has unlimited authority to say no! Our job as prospective change masters is to remember this. The organizational boundaries imposed by segmentalism give individuals very limited authority to say yes. It's the nature of the way organizations work. It is not a sinister plot to undermine your proposal.

The moveable type press invented by Gutenberg in 1448 set the stage for the industrial revolution. It not only provided the mechanism to facilitate communication so essential for innovation, but it began the process of the development of a paradigm—a paradigm which reached its first clearly stated articulation in 1908 with Ford's development of the assembly line.

Like Gutenberg, what Ford's innovation embodied was the segmentation of the task, the development of a stepwise process. This analogy has been used for years as the model for industrial organizations. Jobs are divided into smaller and smaller pieces and then orchestrated to provide the complete solution. Because of this, bureaucrats (I use the term in its most general sense here, i.e, individuals in a bureaucracy), have very limited authority. Saying no is a minimum—risk position. Saying yes is risk—filled.

You cannot expect a bureaucrat to give you a yes. You must expect a no. Your job is the pursuit of rejection, to collect all the no's. Work within the organization! Understand each person's position! The broader and more comprehensive your proposal, the more no's you are going to get before you reach someone who has the authority to say yes .

But don't forget, when you do, the yes may still be no. Don't despair. There will be legitimate reason for the no. You have done your job. Perhaps next time your idea will be accepted, or later, the business will be in a position to see the value of the idea rejected previously. And, if you've done it right, you will not have made enemies in the process of collecting the no's and you will be even more effective the next time!

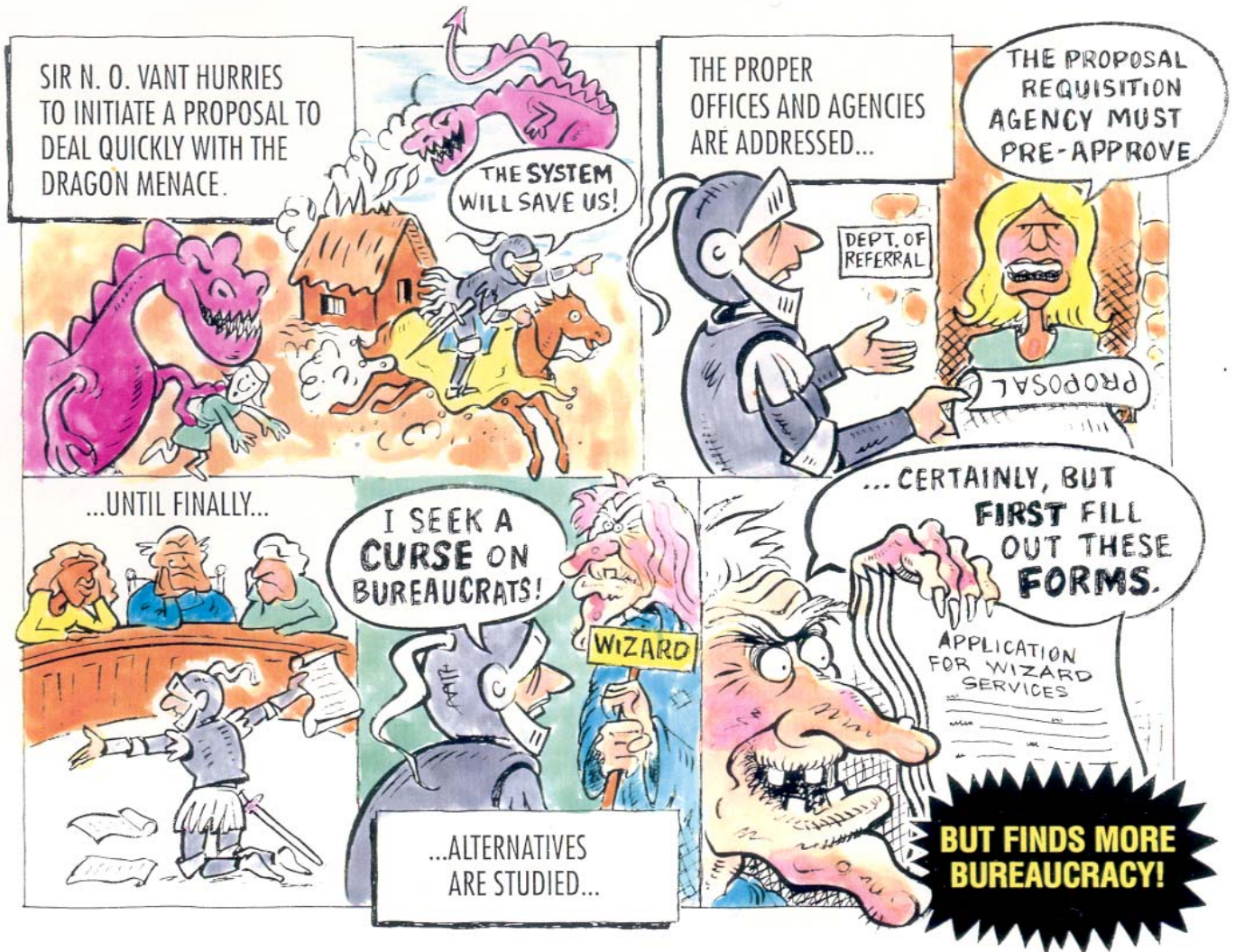


Remember, every bureaucrat has unlimited authority to say no.

Don't Be frustrated by Bureaucracy

Sir N. O. Vant is having difficulty with the bureaucracy, and in particular, bureaucrats.. Sir N. O. Vant learned that a bureaucrat has unlimited authority to say no. This is a lesson worth restating. Bureaucrats are not evil; they are doing only the jobs that they are hired to do. Since they are process oriented - that is, they get measured, and they measure others, not by what is done but by the way it is done - they follow procedures. They will get into trouble by saying yes and thereby exceeding the limits of the procedures that they are measured against.

A wise N. O. Vant understands this. She or he accepts the no, without anger, or helps the bureaucrat find a way within the procedures to say yes. If you can find no way within the procedures to get a yes, go forth and collect as many no's as you need to escalate the issue to someone who has the authority to say yes. In the process treat all the nay-sayers with respect; it is the right thing to do, and besides, you will in all likelihood require their support later on other proposals. Maybe then they will be more inclined to search for a reason, and a way to say yes.



Reduce F.U.D.

Do you recognize this frustrating situation? You've got the answer to the organization's problems and you're not listened to because everyone is too busy struggling with the old way of doing things.

There are three main sets of characters in this cartoon. The king, who has his armor and sword, and his army. He is comfortable with what he has. His army is battle tested. He knows how they will respond to his commands, what hardships they will endure, what sacrifices they will make, what their capabilities are. He has achieved power with his sword. If the power base shifts, he may lose control. The king has a mission. He is intent on completing it as he has done successfully before.

The middle men, either officers in the army, or members of his court, think they see something that may be beneficial. They may also see a way to gain power by introducing the new technology. They look chagrined. They have been unable to catch the king's attention.

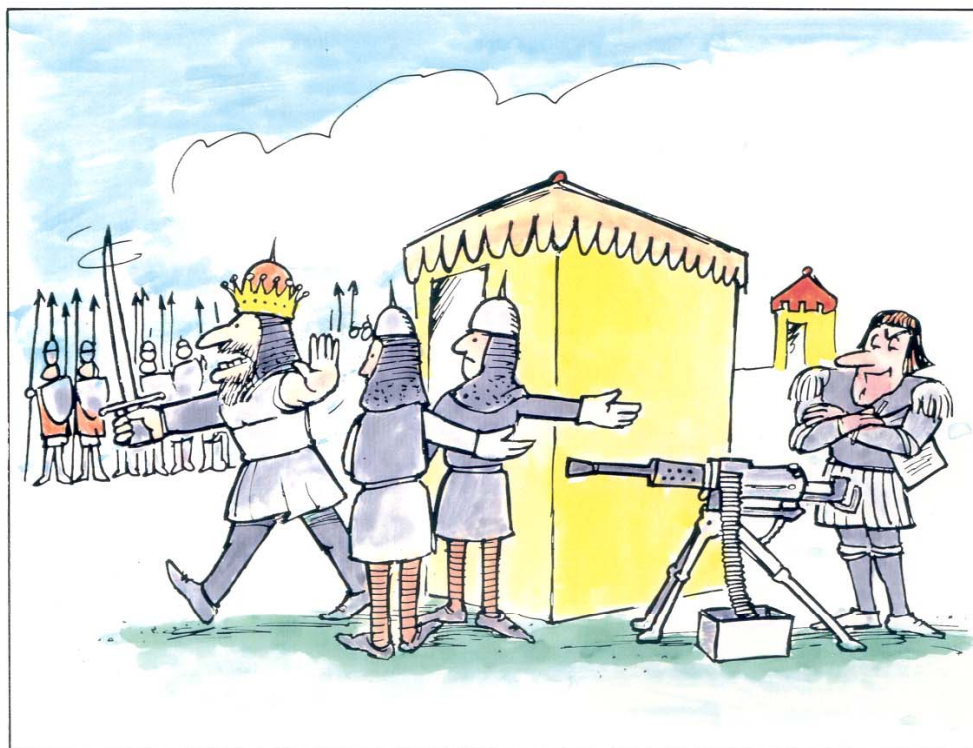
The innovator clearly knows the superiority of his new technology. He smugly waits with arms folded, contract in hand. He has the better mousetrap and he now waits for the world to beat a path to his door.

The innovator is wrong! In order for Sir. N. O. Vant to succeed, he or she must not only develop the innovation, but also successfully introduce the change into the organization. Sir N. O. Vant must market the innovation, become a change master! The responsibility for the acceptance of the innovation by the market place clearly rests with the innovator. This is true inside an organization as well. It is the innovator's responsibility to reduce F.U.D. F.U.D. ? Fear, Uncertainty, and Doubt are the three emotions that exist in the minds of the potential customer for the new idea. In order to successfully market the innovation, the innovator must strive to reduce F.U.D.

What is one way to reduce F.U.D.? Sell the benefits, not the attributes of the idea. In this case the attributes might be the technical characteristics of the machine gun—the size of the bullets, how far or fast they go, how many bullets will it shoot per minute, the shiny polished steel case made of strongest materials, etc. This is a trap we often fall into as technical people, we become enamored with the attributes of our innovation. We have been taught for years that progress is made by improving attributes – the density of the circuit, switching speed, memory size, electrical, thermal, or mechanical characteristics of materials, etc. But, in order to sell, we must switch to benefits. What is one way Sir N. O. Vant could explain the benefits of his innovation? Give demonstration. Even at this point in the King's busy schedule, a demonstration would catch his attention. Instead of waiting for the King to come to him, he should take action. Another way he can reduce F.U.D. is to provide an incremental way of getting from the sword to the machine gun. Maybe he'll plan to have several intermediate models. Perhaps he can introduce the machine gun into a small detachment, train them well, and then show how much more effective this detachment is. He might introduce a trial plan. He can talk about the innovation in terms familiar to the King. Instead of a machine gun, he might call it "rapid wielding long sword." Its benefits could be described in equivalent warriors. Maybe he can point to the fact that the King's enemies will surely have the weapon soon and he must be ready. He can point out the attacker's advantage with new technology. The innovator establishes the new rules of the game. He might even show commitment and volunteer to fight the battle for the King.

These are just a few suggestions from numerous ways the innovator can reduce F.U.D. In order to be effective, Sir. N. O. Vant must first understand the underlying causes for F.U.D. The marketing plan should attack these causes.

Remember, sell the benefits not the attributes!



**"NO! I can't be bothered to see any crazy salesman.
We've got a battle to fight!"**

Know Which Dragon to Fight

To be successful as an innovator, you must know which dragon to fight. Within an organization, there are, at different times, different programs receiving emphasis. This is natural and not a fault of bad practices. Rather it is a recognition of the complexity of a large organization in a rapidly changing, high-technology business. There are always more problems to be solved than the organization has resources to apply.

Without selection and emphasis, the organization's efforts would remain hopelessly fragmented and ineffective; but by selecting a problem for special emphasis, the company establishes a shared vision and creates a purpose. This shared vision channels the efforts of the entire organization and quickly establishes a methodology for prioritization. Projects that will advance the organization's efforts toward the selected goal will receive a more positive reaction than those that do not.

A wise innovator will know what problems have been singled out for special emphasis: what dragons are being fought. Sir N. O. Vant will be searching for innovations which will assist the organization's efforts in solving the high-priority problems.

However good this method of culturally managing large, rapidly changing organizations, it leaves the organization temporarily blind to other potentially damaging problems. Sir N. O. Vant is perceptive and recognizes these emerging issues before the organizational wisdom does. The paradox of this type of organizational management is that its effectiveness is its greatest weakness. Wise managers recognize this and are alert to the different ideas of N. O. Vants within organizations. Future success is dependent upon those that do not see the world always through the paradigm of the organizational culture.

However perceptive the contrary thought, it will be difficult breaking through the barriers of a strong culturally managed organization. Sir N. O. Vant must still recognize what dragons the organization must fight and describe the benefits of the innovation in terms addressing the organization's priority problem, even though its strategic importance is to assist the organization in solving a yet unrecognized problem. Making the proposal now and placing the emphasis on the problem recognized by the organization's logical processes meets the current needs and appeals to the organization's intuitive understanding of the dimly perceived future problem.



Know which dragon to fight.

Just Get the Ship Into the Port

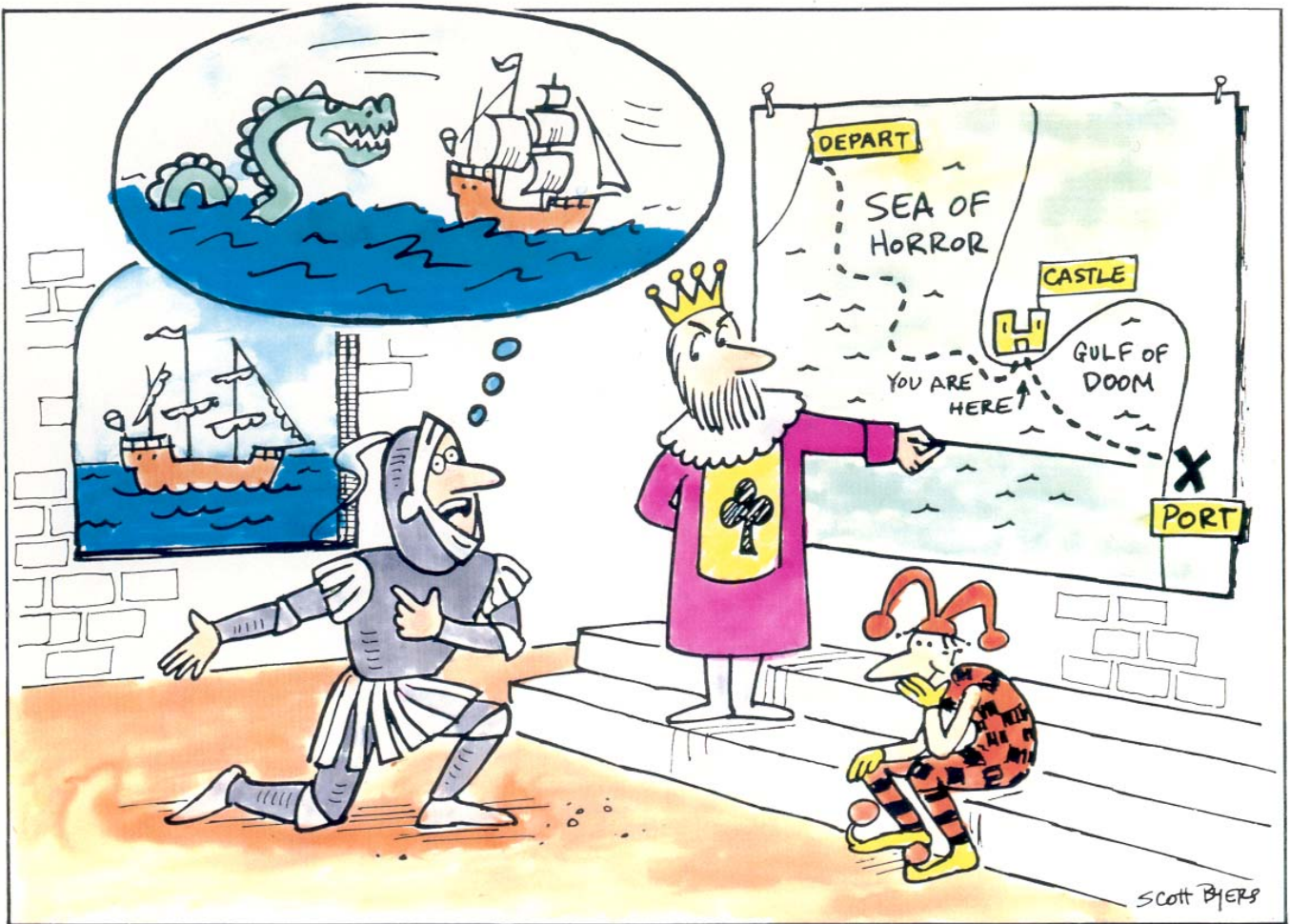
Sir N.O. Vant has had a tough voyage. He has had to battle sea dragons, enemy ships, and storms sailing through a sea of shoals that could have wrecked his ship. But, he persevered. Now, he has successfully completed his voyage and is telling his king how he did. He is very proud of himself, his crew, and excited from the tremendous struggle. Rightly so, he wishes to tell everyone of his exploits. His king responds, cutting him off before he can tell much of his story, "Don't tell me about the storms, dragons, and enemy, just get the ship into the port!"

This is a common mistake fledgling Sir N.O. Vants make as they try to obtain continued support for their innovative projects. In giving a status report, at a checkpoint, Sir N.O. Vants want to tell about all the difficulties. They want to put everything into perspective to make sure that everyone knows how difficult a project has been.

Sir N.O. Vant's king, and most managers, are action-oriented. Just get the ship into the port! The king is well aware of the difficulties that Sir N.O. Vant has faced. He knows all about the dragons, storms, and battles. It is not necessary in most cases to set the context. And, in the few cases where it is necessary, it should be done by timely communications during the voyage, not at the project review.

Time is valuable for all involved. You may not have much time to make the points that need to be made. You most likely will have even less time than was scheduled. More valuable use of time can be made in discussions where you gain from the valuable experience and insight of the king on how to proceed on the next leg of your journey.

Answer two questions: Do you know where you are? Do you know where you are going and why?



Don't tell me about the storms, dragons, and enemy, just get the ship into the port!

Understand Your Priorities

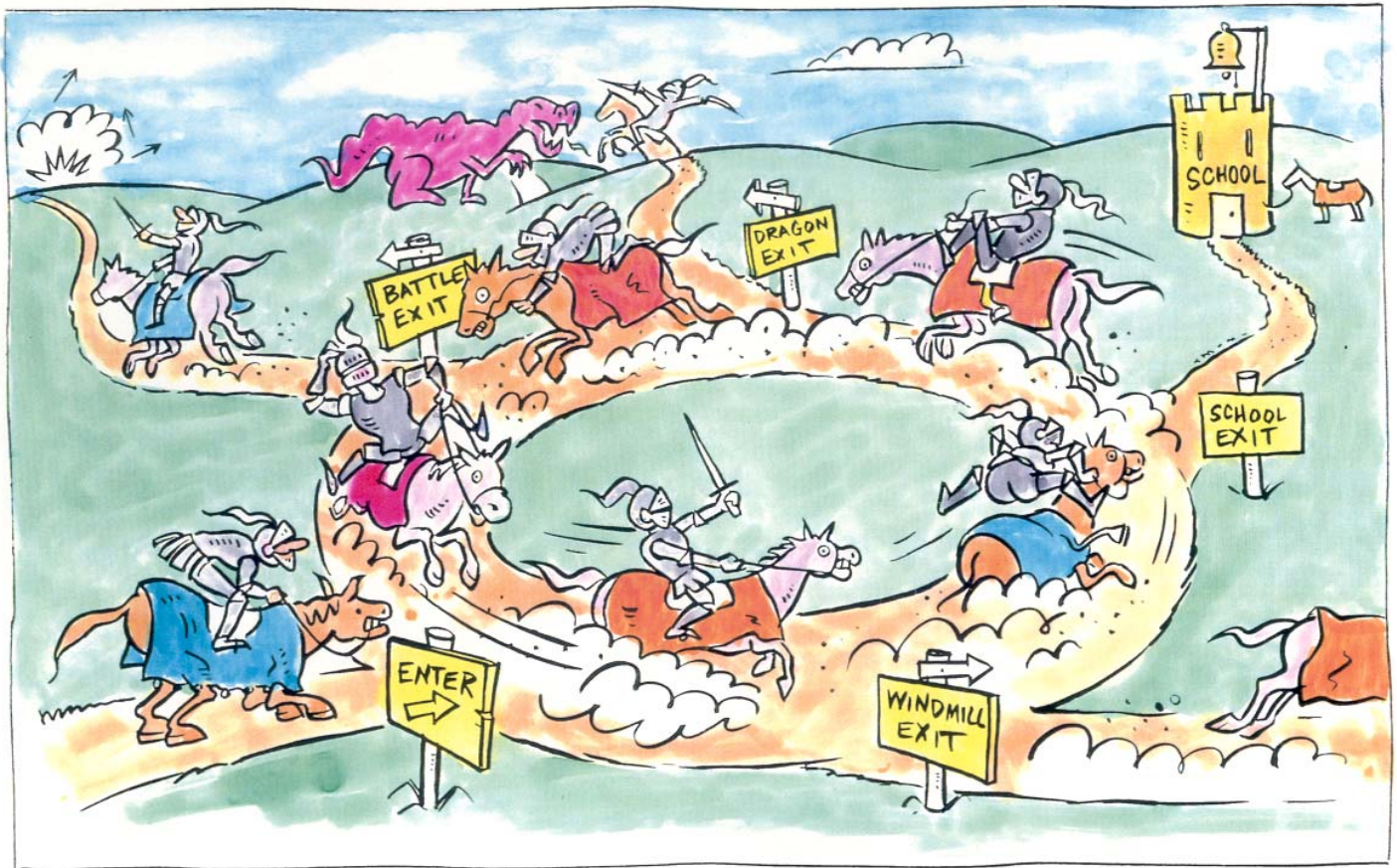
Two of my IBM colleagues were traveling together in France. Driving through the French Country-side, they came upon a traffic circle, or round-about. The yield sign positioned before they entered the circle stated, literally translated, "you have no priority." Gerry, who was driving, remarked that he thought that the sign and the traffic circle were a metaphor for career development in IBM.

After finally working his way into the traffic flow, he continued around and around the circle without exiting. John asked what in the world he was doing. "You see," Gerry said, excitedly, "if you have no priority, you can't decide what you want to do, which exit to take." They then went back to the entrance to the circle, stopped, took pictures of the sign, and told us about it at the next meeting.

Career development is indeed like the French sign and traffic circle. Like poor Sir N.O. Vant in the cartoon, if you have no priority, you have career difficulties. But this priority has two meanings. In the first place, when you enter IBM, you have no professional priority. Others on the fast track rush in front of you to take on tasks. You have to gain speed, watch your timing, and enter the flow.

Once in the circle, if you don't have any priorities, you can be trapped forever. You don't know where to get off. If you have no vision for yourself, a long-range career objective, you have no way to measure what the benefit of any assignment or activity may be. And, you have no way of judging chance occurrences, opportunities that may present themselves to you through-out your career.

If you have no priorities, you do not know whether writing a paper, or attending a class, or going back to school for an advanced degree, or reading a book will be of any benefit to you. You can become caught in the flow, unable to direct your own future, unable to be the master of your own fate, and get swept off at an exit with the rest of the traffic.



"If you have no priority you can't decide which exit to take"

Develop Side Street Vision

An innovator must be strategically focused, but tactically flexible. All successful innovators have a vision. They know what they want to accomplish, or what they want their organization or company to accomplish. They are driven by that vision. They see plainly what others do not perceive. It is this vision which fuels the innovator's drive, giving her or him the energy to overcome numerous obstacles. It is also this drive, which when pursued at the expense of all else, can cause failure. Often Sir N. O. Vant confuses the objective with the means. A stubborn dedication to the means of accomplishing the objective can lead to rejection by the very group from which the innovator seeks support and recognition.

One of the characteristics of successful entrepreneurs is what Karl Vesper, University of Washington, called "side street vision." Quite often the entrepreneur finds opportunities not on the street that is the main business direction, but on the side street. Later, the side street may turn out to be more important than the main street. So, why not go directly to the side street? Entrepreneurs say that they would not have been able to see the side street had they not been going down the main street. It is the process of the pursuit of their objective that equipped them to see the opportunity of the side street.

Two would-be entrepreneurs decided that they would take advantage of vast quantities of surplus materials available at the end of World War II. They each put \$4500 into the purchase of surplus aluminum flanged U--beams. They thought that they would be able to make them into fence posts. They marketed their idea, but it was unsuccessful. The vision that they had was to use surplus materials, available in large quantities, at a low cost, giving them a significant competitive advantage. When their approach began to flounder, they did not continue to pursue that path, they switched. They tried making them into farm gates. They developed a design which they were able to patent. This became very successful and they were able to sell off all their stock at a significant profit.

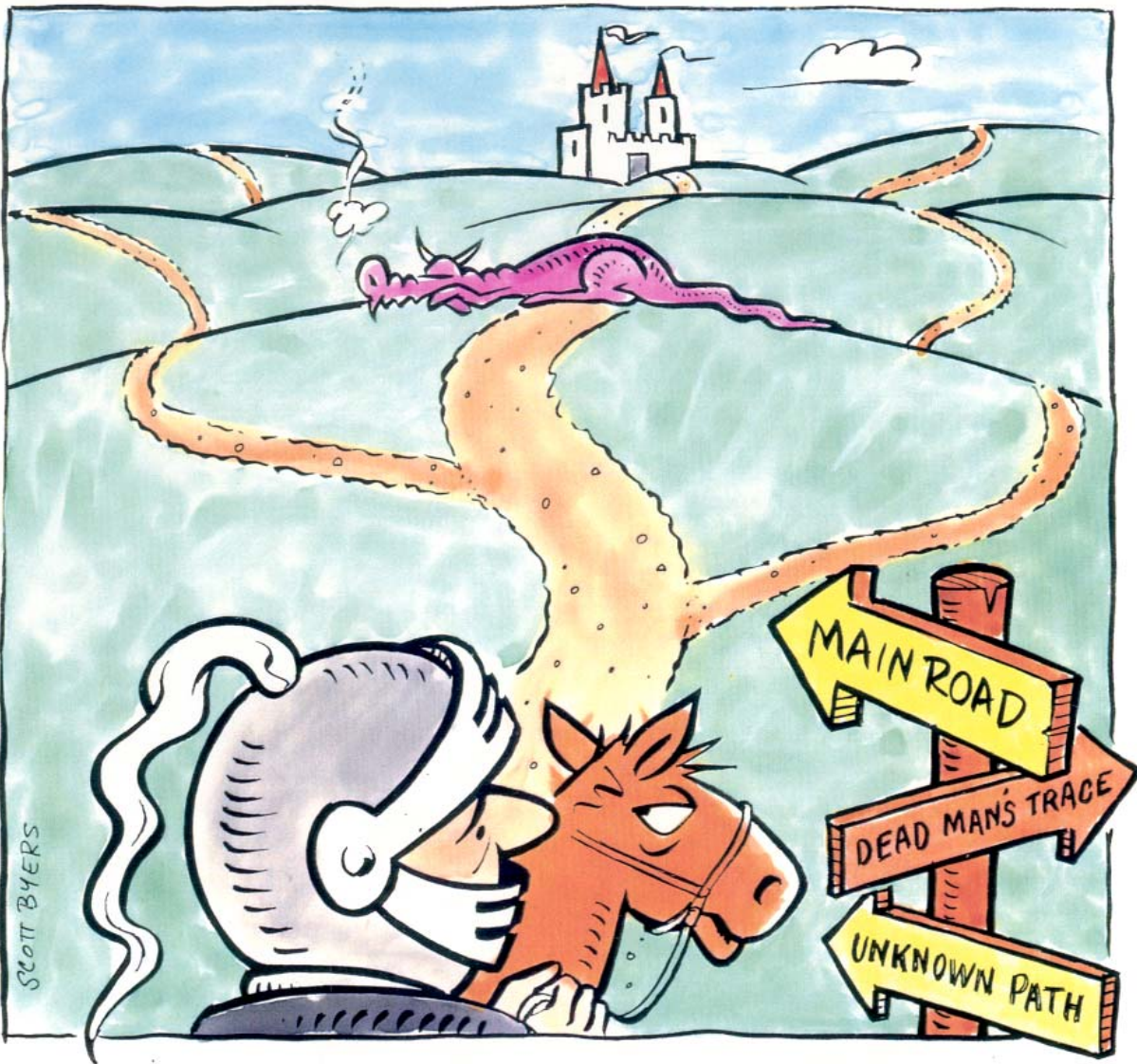
Several years ago when I was visiting Bar Harbor, Maine, a sign on a shop stopped me in my tracks. The sign above the store said "Driven Women". My curiosity aroused, I visited the store. There seemed at first to be nothing unusual about the store. There were three lines of hand made crafts-jewelry and whimsical animal figures, handbags, and dried flowers. What did this have to do with Driven Women? As I turned to go, disappointed, I noticed another line of products, added seemingly as an afterthought. There in back of me was a line of products with the Driven Women theme on them all t-shirts, sweat shirts, buttons, and stickers. I talked to the cashier and asked her the story behind the name. She told me that the three women who created the original three lines of products had become friends after meeting at the crafts shows that they frequented. They began to travel together and in talking decided that they would like to open a store together. This would give them the opportunity to stay home more often, and as two of them had children, this would be advantageous. They looked for a common thread for their products that they could name the store. They found none. After much consideration, one of them hit upon the idea of calling the store Driven Women because it described their characteristics.

Many visitors to the store were drawn by the name as I was. When they began to get the same question over and over, they realized that they had another business opportunity. They created the line of Driven Women

products which grew to the point that it was bigger than the other products that they had.

Pasteur once remarked that chance favors the prepared mind. It seems that if you are not in the process of pursuit of a goal, you will not be prepared for additional opportunities. You must be goal-oriented, yet flexible enough to alter the course of achieving that goal.

In a large organization flexibility is absolutely essential. As the situations rapidly change, Sir N. O. Vant must be able to respond quickly with a change of tactics, not losing sight of his or her vision. Buffeted about by changing priorities, altered management perspectives, and sometimes conflicting forces, a successful Sir N. O. Vant remains true to the vision of change which can bring order to chaos.

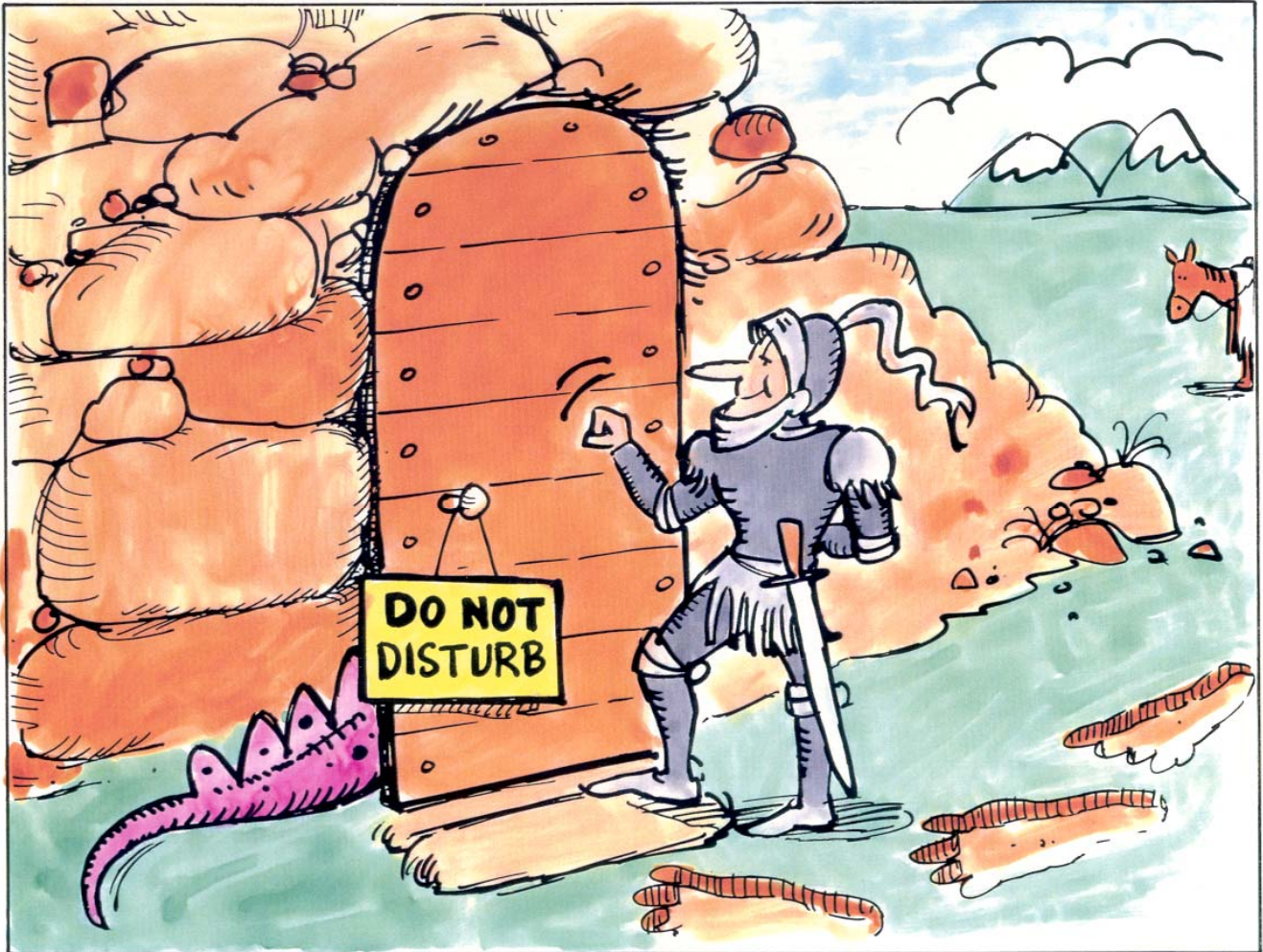


“Quite often the entrepreneur finds opportunities not on the main street that is the main business direction, but on the side street.”

Be Persistent

Quite often when you want to fight the dragon, you can't even get him to come out. He's too busily engaged in other matters. If that's the case, you must be patient and persistent. If your idea has merit, there will come a time when it will have enough value to at least be considered.

So, keep knocking at the door. Keep your idea in front of the organization. Don't give up. And, don't forget. Even if you gain the attention of the organization, you may not find acceptance for your idea. Don't be satisfied with the first rejection. Pursue the proposal through other parts of the organization and at later times. Collect the no's until your idea has been accepted or legitimately rejected.



Be persistent.

Afterword

It occurred to me after reading this collection of essays and art that I may have left the impression that IBM was not a good place to innovate. Far from it. I consider my experience with IBM (1960 – 1990) to be very innovative. I think IBM during that time period was one of the best business enterprises created. IBM married technology development, financial management, respect for people and strong cultural development. IBM's founder, Tom Watson, was an entrepreneur who had an international vision combined with a penchant for taking appropriate risks, and was able to build a company from a meat scale business to the first computers. It was his son however, Tom Watson Jr., that understood the power of human values and organizational culture that created the company I experienced.

The paradox of a strong organizational culture is that it is both a strength and a weakness at the same time. It's a strength because it allows a hierarchical structure and its resultant bureaucracy to be more efficient than a weak culture. And, if the values of the culture are focused on the market, it allows the bureaucracy to be more effective. It's weakness is that as the market changes, it is very difficult, if not impossible, to change the culture to focus on the new market.

Of the aphorisms I used in my presentations in IBM that I did not develop in this series of essays and art work is "The chain is longer than you think." This was the way the culture subconsciously dealt with its weakness. This aphorism relates to what became known as loose-tight management or leadership some years later. For those inside the IBM culture who perceived that the chain was long, and were willing to take risks, this weakness of the culture became an opportunity. For the culture, the people who perceived the opportunity and took action, their actions became a threat.

The best example I have of this is an incident when I was involved in managing product development of a new business venture. I was told by an executive to change business practices so I could get products announced faster. Shortly after, the same executive told the independent Product Assurance manager (a friend of mine) to watch me very closely because I was going to try to break the rules.

This "long chain" phenomena had two aspects to it. The first allow someone to stay in an area of expertise and foster a lot of innovations. Or, one could move to vastly different jobs fairly easily. I took advantage of both.

I spent the first ten years of my thirty year career with IBM in semiconductors as a technologist, technology manager and inventor. Before I started the second ten year stint, I took a job as the resident manager for IBM at TI in Sherman, Texas. Then I worked as an internal entrepreneur (intrapreneur) for ten years in creating a new business venture based on the marriage of computers, instrumentation, software and application knowledge. This was IBM's first independent business unit. Lastly, I worked as a cultural change agent creating and running the creativity and innovation enhancement program that these essays and art were a small part of.

As a technologist I was convinced that the way to the future was through technological innovations. However, I learned that business practiced held up technological innovation. So as in intrapreneur, I worked on changing business practices (this later became known as process reengineering), another form of innovation that was required to facilitate technological innovation. My experiences in this type of innovation taught me

that the culture really controlled innovation. The business practices would snap back to the way they were as soon as the pressure was removed. As a cultural change agent I learned that another type of innovation was required, cultural innovation, or as I called it procedural innovation (how people work with each other).

I am cursed (or blessed) with foresight. I see the future long before the events click in place to allow that future to emerge. Foresight is a curse because if you see too far into the future, no one else can understand what you're talking about, and it takes too long to be manifest. So I resorted to various means of attempting to communicate my perceptions of the future.

The newsletter was just one part of an integrated cultural change program for the IBM Austin site. It is described in a chapter of the book *Innovate!*, McGraw Hill, 1994.

The program grew into a grass roots effort involving many IBM locations. We developed a loose knit group of about thirty people who met and exchanged ideas on how to foster organizational cultural change, with a focus on technical professional vitality. The group presented me with an award at one meeting. It was an old boot scorched by flame and was loosely called the Dragon Kickers Award. The idea was to award it each year to someone who had made significant progress. Unfortunately, I was its only recipient as within a year IBM decided to retire and release a large percentage of its population. Not willing to try or wait for the slower pace of cultural change, the executives opted for the quick fix.

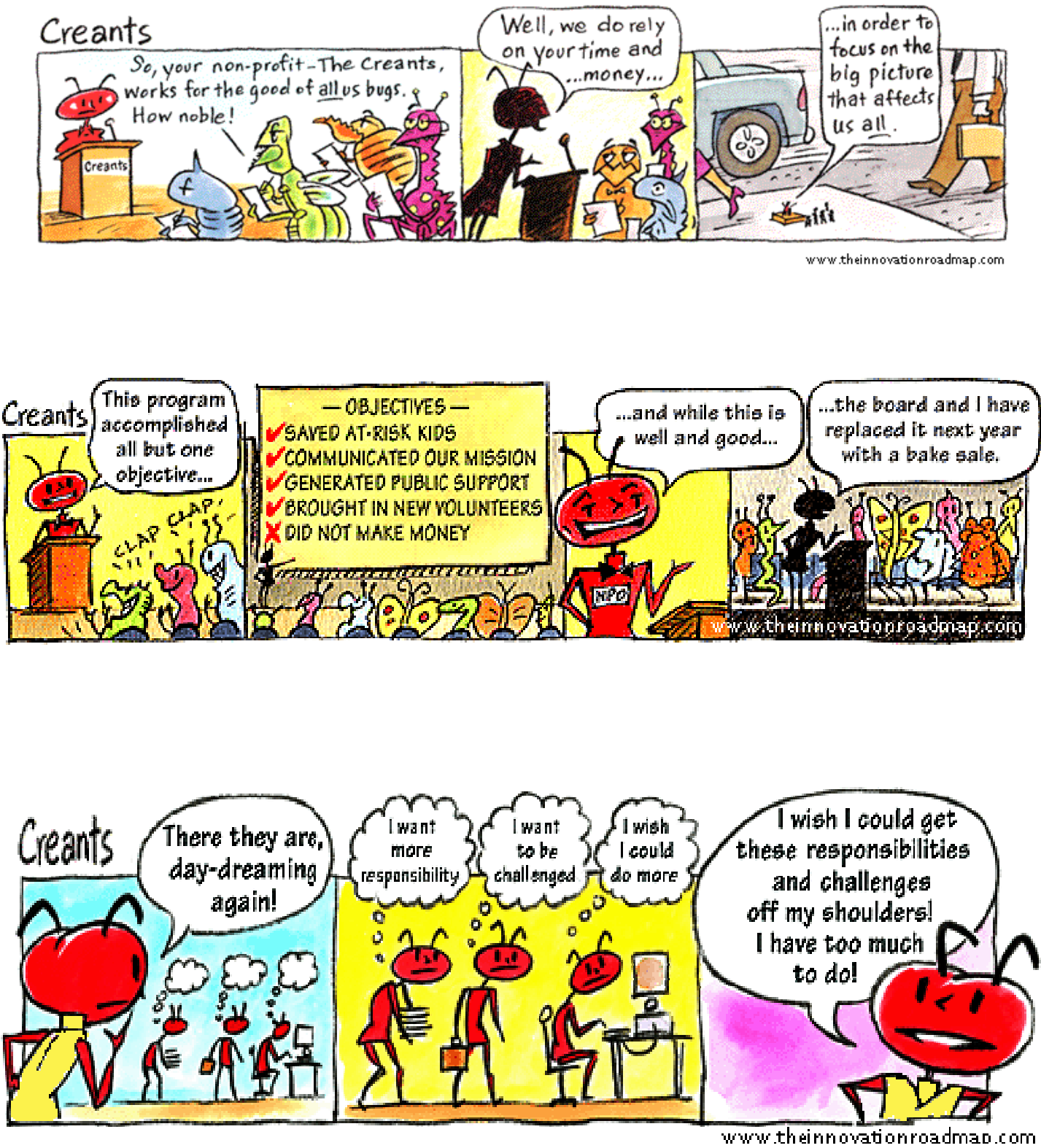
When I retired from IBM in 1990, Scott presented me with this picture of me as the knight I guess I always wanted to be.

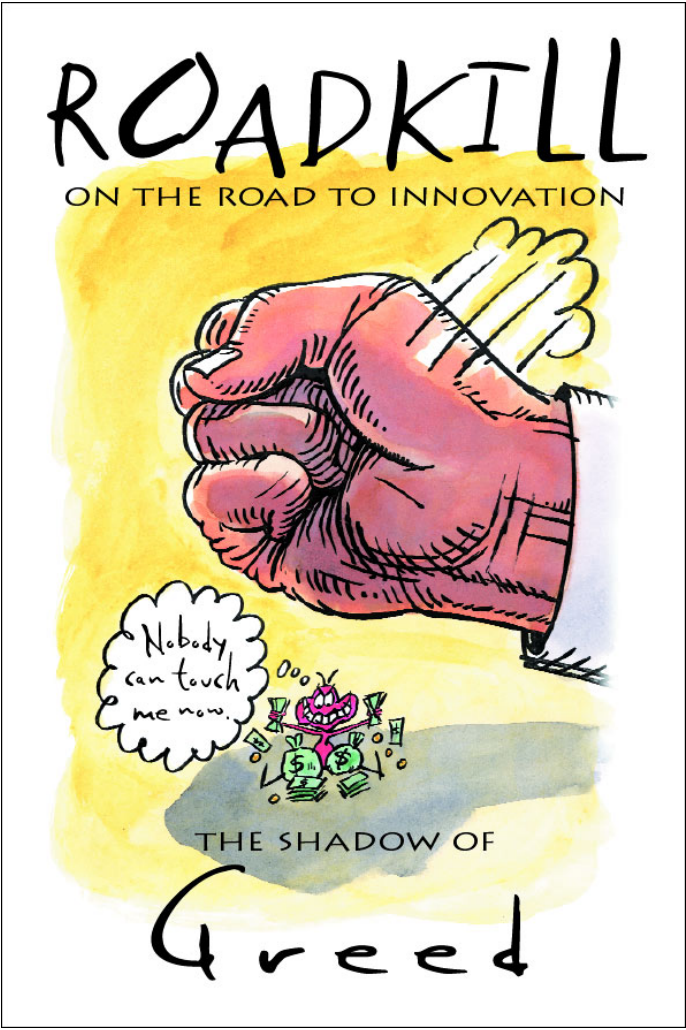
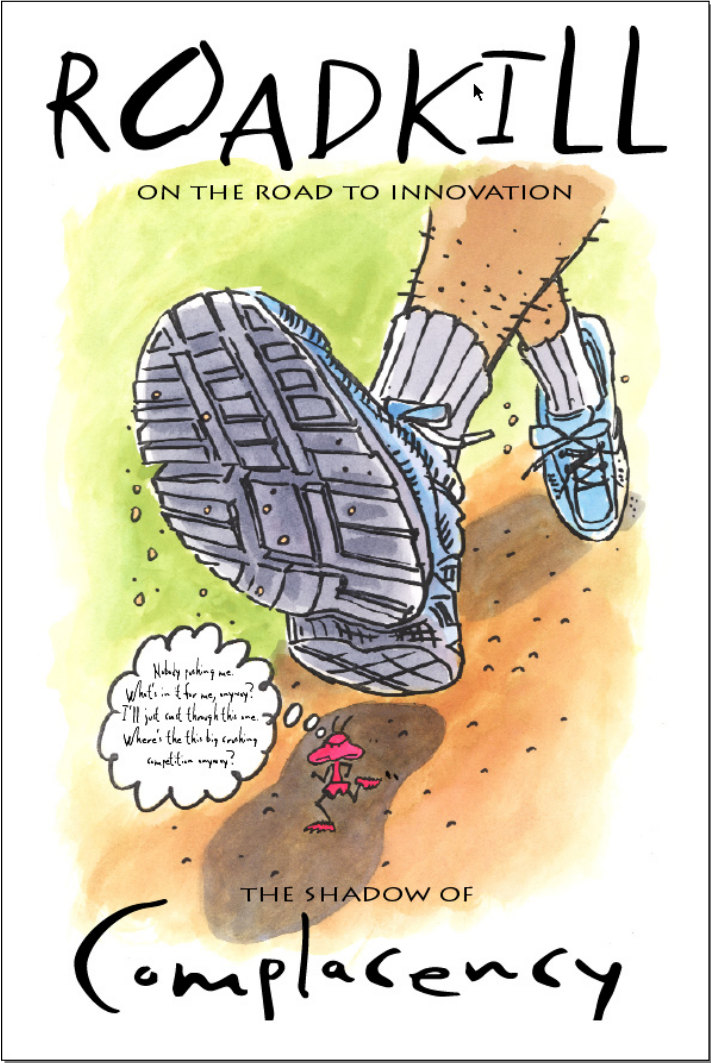


Addendum

Scott created additional art after our experience together in IBM. We worked together on the Innovation Road Map project. One element of the project was an electronic newsletter. Scott did all the art work for the newsletter that was published for two years. Two additional cartoon sequences were developed—Creants (from the oxymoron creative ants) and Roadkill. Examples of these are on the following pages.

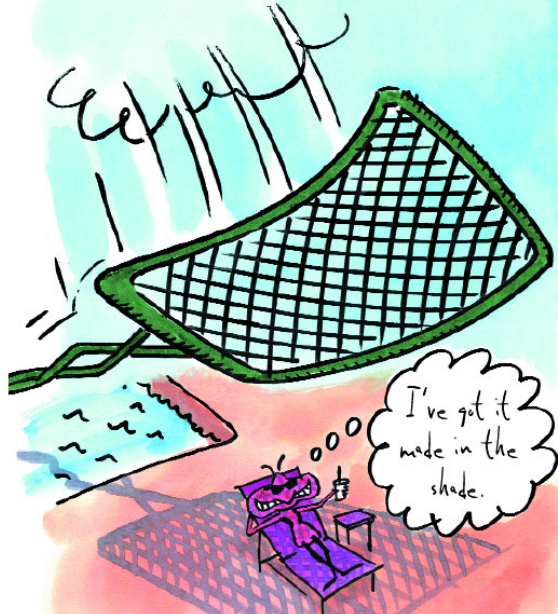
Creants





ROADKILL

ON THE ROAD TO INNOVATION



THE SHADOW OF

Overconfidence

ROADKILL

ON THE ROAD TO INNOVATION



THE SHADOW OF

Unethical

www.theinnovationroadmap.com





-THE STAGES OF INNOVATION-

